

### **REMARKS**

The Examiner rejected claims 1, 3-10, 12-19, 21-30 and 32-46 under 35 U.S.C. § 102(a) as allegedly being anticipated by Rosenschein *et al.* (USPN 6,519,631 B1).

The Examiner rejected claims 2, 11, 20 and 31 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rosenschein *et al.* in view of Mahmoud, “Registration and Discovery of Web Services Using JAXR with XML Registries such as UDDI and ebXML”, June 2002.

The Examiner rejected claims 47-48 under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter: algorithm.

The Examiner rejected claims 49-50 under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter: algorithm.

The Examiner rejected claims 47-50 under 35 U.S.C. § 102(a) as allegedly being anticipated by Rosenschein *et al.*

Applicants respectfully traverse the claim objections, the § 101, § 102 and § 103 rejections with the following arguments.

### 35 U.S.C. § 101

#### Claims 47-48

The Examiner rejected claims 47-48 under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter: algorithm.

The Examiner argues: “Claims 47-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter: algorithm. Claim 47 recites a method of "sequentially transmitting at least one additional portion ... after said transmitting the first portion" of a document. Claim 48 recites this method for a "remote host". These claims clearly recite no more than the 101 judicial exception of algorithm as they specify only an unambiguous procedure. There is clearly no physical transformation associated with the procedures specified, but the procedures have the practical result of moving a document from one computer to another. However, claims 47-48 preempt the use of the procedure of "sequentially transmitting at least one additional portion ... after said transmitting the first portion" of a document from any one machine to another (since one, in any pair of machines, may be designated as "remote"). These claims, essentially, foreclose, from others, the use of sequential transmission of parts of a document. Claims 47-48 are non-statutory under 35 U.S.C. 101.”

In response with respect to claim 47, Applicants note that claim 47 depends from claim 1 and claim 1 is statutory under 35 U.S.C. 101. Therefore, the test of whether claim 47 is statutory under 35 U.S.C. 101 depends on whether the feature specific to claim 47, namely “wherein said sequentially transmitting at least one additional portion of the document is performed after said transmitting the first portion of the document has been performed”, is statutory under 35 U.S.C.

101. However, the preceding feature specific to claim 47 merely states that the “sequentially transmitting” step is performed after the “transmitting” step. Surprisingly, the preceding argument of the Examiner did not even address whether recitation of the relative timing of performance of the “sequentially transmitting” step and the “transmitting” step is statutory under 35 U.S.C. 101. Applicants assert that reciting that the “sequentially transmitting” step is performed after the “transmitting” step is not unstatutory under 35 U.S.C. 101. Therefore, Applicants assert that the Examiner’s argument is not persuasive in relation to claim 47 and that claim 47 is not unstatutory under 35 U.S.C. 101.

In response with respect to claim 48, Applicants note that claim 48 depends from claim 10 and claim 10 is statutory under 35 U.S.C. 101. Therefore, the test of whether claim 48 is statutory under 35 U.S.C. 101 depends on whether the feature specific to claim 48, namely “wherein the remote host is adapted to sequentially transmit the at least one additional portion of the document to the web service host after the remote host has transmitted the first portion of the document to the web service host”, is statutory under 35 U.S.C. 101. However, the preceding feature specific to claim 48 merely states that the remote host is adapted to “sequentially transmit at least one additional portion of a document” after the remote host “has transmitted the first portion of a document”. Surprisingly, the preceding argument of the Examiner did not even address whether recitation of the relative timing of to “sequentially transmit at least one additional portion of a document” and said “transmitted the first portion of a document” is statutory under 35 U.S.C. 101. Applicants assert that reciting that the remote host is adapted to “sequentially transmit at least one additional portion of a document” after the remote host “transmitted the first portion of a document” is not unstatutory under 35 U.S.C. 101. Therefore,

Applicants assert that the Examiner's argument is not persuasive in relation to claim 48 and that claim 48 is not unstatutory under 35 U.S.C. 101.

Based on the preceding arguments, Applicants respectfully request that the rejection of claims 47-48 under 35 U.S.C. 101 be withdrawn.

#### Claims 49-50

The Examiner rejected claims 49-50 under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter: algorithm.

The Examiner argues: "Claims 49-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter: algorithm. Claim 49 recites "sequentially receiving at least one additional portion of the document is performed after said receiving the first portion of the document" of a document. Claim 50 recites this method for a "web service host". These claims clearly recite no more than the 101 judicial exception of algorithm as they specify only an unambiguous procedure. There is clearly no physical transformation associated with the procedures specified, but the procedures have the practical result of obtaining a document from one computer on another. However, claims 47-48 preempt the use of the procedure of "sequentially receiving at least one additional portion of the document ... after ... receiving the first portion of the document" of a document from any one machine on another (since, in any pair of machines, one may be designated a "web service host"). These claims, essentially, foreclose, from others, the use of sequential reception of parts of a document from the web. Claims 49-50 are clearly non-statutory under 35 U.S.C. 101."

In response with respect to claim 49, Applicants note that claim 49 depends from claim

19 and claim 19 is statutory under 35 U.S.C. 101. Therefore, the test of whether claim 49 is statutory under 35 U.S.C. 101 depends on whether the feature specific to claim 49, namely “wherein said sequentially receiving at least one additional portion of the document is performed after said receiving the first portion of the document has been performed”, is statutory under 35 U.S.C. 101. However, the preceding feature specific to claim 49 merely states that the “sequentially receiving” step is performed after the “receiving” step. Surprisingly, the preceding argument of the Examiner did not even address whether recitation of the relative timing of performance of the “sequentially receiving” step and the “receiving” step is statutory under 35 U.S.C. 101. Applicants assert that reciting that the “sequentially receiving” step is performed after the “receiving” step is not unstatutory under 35 U.S.C. 101. Therefore, Applicants assert that the Examiner’s argument is not persuasive in relation to claim 49 and that claim 49 is not unstatutory under 35 U.S.C. 101.

In response with respect to claim 50, Applicants note that claim 50 depends from claim 30 and claim 30 is statutory under 35 U.S.C. 101. Therefore, the test of whether claim 50 is statutory under 35 U.S.C. 101 depends on whether the feature specific to claim 50, namely “wherein the web service host is adapted to sequentially receive the at least one additional portion of the document from the remote host after the web service host has received the first portion of the document from the remote host”, is statutory under 35 U.S.C. 101. However, the preceding feature specific to claim 50 merely states that the remote host is adapted to “sequentially receive at least one additional portion of a document” after the remote host “has received the first portion of a document”. Surprisingly, the preceding argument of the Examiner did not even address whether recitation of the relative timing of to “sequentially receive at least

one additional portion of a document” and said “received the first portion of a document” is statutory under 35 U.S.C. 101. Applicants assert that reciting that the remote host is adapted to “sequentially receive at least one additional portion of a document” after the remote host “received the first portion of a document” is not unstatutory under 35 U.S.C. 101. Therefore, Applicants assert that the Examiner’s argument is not persuasive in relation to claim 50 and that claim 50 is not unstatutory under 35 U.S.C. 101.

Based on the preceding arguments, Applicants respectfully request that the rejection of claims 49-50 under 35 U.S.C. 101 be withdrawn.

**35 U.S.C. § 102(a)**

The Examiner rejected claims 1, 3-10, 12-19, 21-30, 32-46, and 47-50 under 35 U.S.C. § 102(a) as allegedly being anticipated by Rosenschein *et al.* (USPN 6,519,631 B1).

Applicants gratefully acknowledge the Examiner's clarification of language and definitions, as well as the Examiner's explanations of the Examiner's analysis of Rosenschein in relation to the pending claims.

**Preliminary Discussion of Terminology and Definitions**

Table 1 *infra* depicts what Applicants believe is the Examiner's interpretation of how various recited words and phrases claimed by Applicant are represented in Rosenschein. Both the text of the rejection and the Examiner's "Response to Arguments" serve as the basis of Table 1.

Table 1

Claimed By Applicant	Represented in Rosenschein (as alleged by Examiner)
remote host in first computing system	servers 90, 92, 94
web service host in second computing system	server 30
document	"data" returned by server 30 to the user 60 in response to the user 60 having clicked on the "designated word"; in FIG. 2, a portion of the "document" is in large box on the right side of display 64 and "designated word" FLOWERS is in small window on right side of display 64
first portion of document	a subset of text in the document
at least one additional portion of document	at least one additional subset of text in the document

Applicants note that the Examiner appears to interpret the phrase “body of text” as being used by Rosenschein to denote the “data” of the “document” returned by the server 30 to the user 60. Applicants respectfully contend that the preceding interpretation of “body of text” as used by Rosenschein is incorrect. Rosenschein, col. 1, lines 58-63 recites:

“The user designates at least one word **in a body of text** which is shown on a display of the client, and the client automatically transmits the designated word over the network to the server. The server processes the word and transmits data relating thereto to the client.” (Rosenschein , col. 1, lines 58-63).

Therefore, the phrase “body of text” in Rosenschein refers to text from which the “designated word” is selected by the user, and not the “data” of the “document” returned by the server 30 to the user 60.

Using the Examiner’s preceding terminology and definitions and Applicants’ interpretation of “body of text” appearing in Rosenschein, Applicants’ understanding of Rosenschein’s invention with reference to FIGS. 1 and 2 of Rosenschein, is as follows. A user 60 accesses a “body of text” on display 64. The user 60 selects (e.g., by pointing and clicking) a word of the displayed “body of text” to indicate that additional data is desired by the user about the selected word, and the selected word is called a “designated word” (see Rosenschein, col. 7, lines 31-35). Then the user 60 transmits, via client 52, the designated word to the web service host 30 (see Rosenschein, col. 7, lines 41-42). Then the web service host 30 processes the designated word (see Rosenschein, col. 7, line 42). Indeed, most of Rosenschein’s disclosure (col. 8, line 61 - col. 10, line 45) is devoted to the processing of the designated word. After and



based on processing the designated word, the web service host 30 receives from remote host 90 the “data” desired by the user 60 (see Rosenschein, col. 7, line 44 - col. 8, line 2). Then the web service host 30 transmits the desired “data” (received by the web service host 30 from the remote host 90) to the user 60 (see Rosenschein, col. 7, lines 42-43) and is depicted in the large box on the right side of display 64 (see Rosenschein, col. 8, lines 53-60) .

The preceding summary of Rosenschein attempts to use terminology and definitions in a manner that is consistent as possible with the Examiner’s usage of terminology and definitions. However in order to interpret Rosenschein in a manner that properly reflects Rosenschein’s disclosure, Applicant are using Applicants’ interpretation of the meaning of “body of text” in Rosenschein, and not the Examiner’s interpretation of “body of text”, in Applicants’ arguments which traverse the Examiner’s rejections of the claims.

#### Application of Rosenschein To Claims 1, 3-10, 12-19, 21-30 and 32-46

Applicants respectfully contend that Rosenschein does not anticipate claims 1, 10, 19, and 30, because Rosenschein does not teach each and every feature of claims 1, 10, 19, and 30.

As a first example of why Rosenschein does not anticipate claims 1, 10, 19, and 30, Rosenschein does not teach the feature wherein the web service host performs “extracting text from said entire document to configure said text in a text format, if said entire document received by said web service host comprises said text in a non-text format”

The Examiner cites Rosenschein, col. 8, lines 42-52 which recites: “In a practical example, the user may be watching a standard broadcast of a baseball game, and a pitcher's name

and statistics are shown at the bottom of the display. The user points to and clicks on the pitcher's name, and an OCR algorithm determines the text, which is transmitted to server 30 for retrieval therefrom of information related to the pitcher's name. Alternatively, if the text is transmitted in a separate data stream from that containing the video portion of the baseball game, then the pitcher's name may be retrieved directly from the separate data stream.”

In “Response to Arguments”, the Examiner argues: “Examiner asserts that the prior art here is the extraction (by OCR) of text from a standard broadcast image, which comprises text, in a non-text format (see col. 8, lines 45-48). Examiner adds that claims 1, 10, 19, and 30 place no constraints on the definition or use of the word ‘text’.”

In response, Applicants note that Rosenschein, col. 8, lines 45-48 recites: “The user points to and clicks on the pitcher's name, and an OCR algorithm determines the text, which is transmitted to server 30 for retrieval therefrom of information related to the pitcher's name.”.

Applicants respectfully contend that the preceding quote from Rosenschein, col. 8, lines 45-48 does not teach that the pitcher's name clicked by the user is in a non-text format, and does not teach that the OCR algorithm configures the determined text in a text format.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding “extracting” feature of claims 1, 10, 19, and 30.

As a second example of why Rosenschein does not anticipate claims 1, 10, 19, and 30, Rosenschein does not teach wherein the web service host performs “generating document keys associated with said text from analysis of said text in said text format, if said entire document received by said web service host comprises said text in said text format, or if said web service

host has previously performed said extracting such that said text in said text format is available to said web service host”.

The Examiner argues: “*Rosenschein et al.* teach ... generating document keys associated with said text from analysis of said text in said text format, if said entire document received by said web service host comprises said text in said text format, or if said web service host has previously performed said extracting such that said text in said text format is available to said web service host (*see col. 8, lines 61-66, Examiner interprets "the designated word in the context of the context-indicating words " to be a key associated with said text*)”.

In response, Applicants respectfully contend that the Examiner’s argument is not persuasive, because “said text in said text format” that is analyzed to perform said generating has antecedent basis in “extracting text **from said entire document** to configure **said text in a text format**” (emphasis added) and therefore must be derived from the claimed “document”. However in *Rosenschein*, the designated word is drawn from “the body of text” as explained *supra* (see *Rosenschein*, col. 1, lines 58-63). Moreover, *Rosenschein*, col. 8, lines 61-62 recites that the “one or more context-indicating words are drawn from the body of text”. Since the “body of text” in *Rosenschein* refers to text from which the “designated word” is selected by the user, and not the “data” of the “document”, *Rosenschein*, lines 61-66 does not teach the preceding “generating” feature of claims 1, 10, 19, and 30.

Therefore, Applicants respectfully contend that *Rosenschein* does not teach the preceding feature of claims 1, 10, 19, and 30.

As a third example of why *Rosenschein* does not anticipate claims 1, 10, 19, and 30,

Rosenschein does not teach wherein the web service host performs “determining, from given categories of a document taxonomy, a set of closest categories to the document based on a comparison between the document keys and category keys of the given categories, if said entire document received by said web service host comprises said document keys, or if said web service host has previously performed said generating such that said document keys are available to said web service host”.

In “Response to Arguments”, the Examiner argues: “Rosenschein does teach that the document keys  $s_1, s_2, \dots, s_n$  are compared with category keys  $k_1, k_2, \dots, k_n$  to determine a set of closest categories (*see* col. 10, lines 1-7). These comparisons generate the values of the modified positional weights  $p_1, p_2, \dots, p_N$ , which are then utilized, in combination with the category weight matrix elements  $W_{ij}$  to compute the score  $S(c_i)$ .”

In response, Applicants view the preceding argument of the Examiner to present the view that the positional weights  $p_i$  calculated according to Rosenschein, col. 10, lines 1-7 represent the claimed “set of closest categories to the document”. Applicants respectfully disagree with the preceding argument by the Examiner, because the positional weights  $p_i$  calculated according to Rosenschein, col. 10, lines 1-7 do not depend on anything related to the claimed document. As explained *supra*, the Examiner considers the claimed “document” to be “data” returned by server 30 to the user 60 in response to the user 60 having clicked on the “designated word”. However, none of said “data” is utilized in the calculation of the positional weight  $p_i$ . According to Rosenschein, col. 10, lines 1-7, the positional weights  $p_i$  are a function of the document keys  $s_1, s_2, \dots, s_n$  and the category keys  $k_1, k_2, \dots, k_n$ . However, the Examiner argues that the document keys  $s_1, s_2, \dots, s_n$  are generated from the designated word in the context of the context-indicating

words. Applicants assert that both the designated word and the context-indicating words are drawn from the “body of text” which in Rosenschein refers to text from which the designated word” is selected by the user and not the “data” of the “document”, as explained *supra*.

Moreover, the category keys  $k_1, k_2, \dots, k_n$  are drawn from the database 34 of the server 30 and not from the “data” of the “document”(see Rosenschein, col. 9, lines 16-18). Since no input drawn from the “data” of the “document” is used to compute the positional weights  $p_i$ , Applicants assert that the positional weights  $p_i$  do not represent the claimed “set of closest categories to the document”.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 1, 10, 19, and 30.

Based on the preceding arguments, Applicants respectfully maintain that Rosenschein does not anticipate claims 1, 10, 19, and 30, and that claims 1, 10, 19, and 30 are in condition for allowance. Since claims 3-9, 41-42, and 47 depend from claim 1, Applicant contends that claims 3-9, 41-42, and 47 are likewise in condition for allowance. Since claims 12-18, 43-44, and 48 depend from claim 10, Applicant contends that claims 12-18, 43-44, and 48 are likewise in condition for allowance. Since claims 21-29, 45, and 49 depend from claim 19, Applicant contends that claims 21-29, 45, and 49 are likewise in condition for allowance. Since claims 32-40, 46, and 50 depend from claim 30, Applicant contends that claims 32-40, 46, and 50 are likewise in condition for allowance.

In addition with respect to claims 5, 14, 23, and 34, Applicants respectfully contend that

Rosenschein does not teach the feature: “wherein said processing comprises said extracting, said generating, and said determining”, based on the arguments presented *supra* in conjunction with claims 1, 10, 19, and 30, wherein said arguments presented *supra* explain that Rosenschein does not teach said extracting.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 5, 14, 23, and 34.

In addition with respect to claims 6, 15, 24, and 35, Applicants respectfully contend that Rosenschein does not teach the feature: “wherein said processing consists of two of said extracting, said generating, and said determining”.

In “Response to Arguments”, the Examiner argues: “Examiner responds by pointing out that claims reciting combinations of claimed features just rejected in various ways, "employ only a portion of the features described hereinabove, or a combination of features described with reference to a plurality of the figures" found in *Rosenschein et al.*”

In response, Applicants respectfully contend that the “consists of” language in the preceding feature of claims 6, 15, 24, and 35 requires that of two and only two of “said extracting, said generating, and said determining” are performed. Thus, one of “said extracting, said generating, and said determining” is not performed with respect to the preceding feature of claims 6, 15, 24, and 35. The Examiner has not cited anything in Rosenschein in support of Rosenschein teaching an embodiment in which two and only two of “said extracting, said generating, and said determining” are performed.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding

feature of claims 6, 15, 24, and .

In addition with respect to claims 7, 16, 25, and 36, Applicants respectfully contend that Rosenschein does not teach the feature: “wherein said processing comprises said extracting but not said generating and not said determining”.

In “Response to Arguments”, the Examiner argues: “see above” which Applicants interpret as referring to the following argument by the Examiner for claims 6, 15, 24, and 35: “Examiner responds by pointing out that claims reciting combinations of claimed features just rejected in various ways, “employ only a portion of the features described hereinabove, or a combination of features described with reference to a plurality of the figures” found in *Rosenschein et al.*”.

In response, Applicants respectfully contend that preceding feature of claims 7, 16, 25, and 36 requires that “said extracting” is performed and that “said generating” and “said determining” are not performed. The Examiner has not cited anything in Rosenschein in support of Rosenschein teaching an embodiment in which “said extracting” is performed and that “said generating and said determining” are not performed.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 7, 16, 25, and 36.

In addition with respect to claims 8, 17, 26, and 37, Applicants respectfully contend that Rosenschein does not teach the feature: “wherein said processing comprises said generating but not said extracting and not said determining”.

In “Response to Arguments”, the Examiner argues: “see above” which Applicants interpret as referring to the following argument by the Examiner for claims 6, 15, 24, and 35: “Examiner responds by pointing out that claims reciting combinations of claimed features just rejected in various ways, "employ only a portion of the features described hereinabove, or a combination of features described with reference to a plurality of the figures" found in *Rosenschein et al.*”.

In response, Applicants respectfully contend that preceding feature of claims 8, 17, 26, and 37 requires that “said generating” is performed and that “said extracting” and “said determining” are not performed. The Examiner has not cited anything in *Rosenschein* in support of *Rosenschein* teaching an embodiment in which “said generating” is performed and that “said extracting” and “said determining” are not performed.

Therefore, Applicants respectfully contend that *Rosenschein* does not teach the preceding feature of claims 8, 17, 26, and 37.

In addition with respect to claims 9, 18, 27, and 38, Applicants respectfully contend that *Rosenschein* does not teach the feature: “wherein said processing comprises said determining but not said extracting and not said generating”.

In “Response to Arguments”, the Examiner argues: “see above” which Applicants interpret as referring to the following argument by the Examiner for claims 6, 15, 24, and 35: “Examiner responds by pointing out that claims reciting combinations of claimed features just rejected in various ways, "employ only a portion of the features described hereinabove, or a combination of features described with reference to a plurality of the figures" found in



*Rosenschein et al.*”.

In response, Applicants respectfully contend that preceding feature of claims 9, 18, 27, and 38 requires that “said determining” is performed and that “said extracting” and “said generating” are not performed. The Examiner has not cited anything in *Rosenschein* in support of *Rosenschein* teaching an embodiment in which “said determining” is performed and that “said extracting” and “said generating” are not performed.

Therefore, Applicants respectfully contend that *Rosenschein* does not teach the preceding feature of claims 9, 18, 27, and 38.

In addition with respect to claims 28 and 39, Applicants respectfully contend that *Rosenschein* does not teach the feature: “comparing the category keys of each category with said document keys to make a determination of a distance between the document and each category as a measure of how close the document is to each category”.

In “Response to Arguments”, the Examiner argues: “*Rosenschein* does teach that the document keys  $s_1, s_2, \dots, s_n$  are compared with category keys  $k_1, k_2, \dots, k_n$  to determine a set of closest categories (*see* col. 10, lines 1-7). These comparisons generate the values of the modified positional weights  $p_1, p_2, \dots, p_N$ , which are then utilized, in combination with the category weight matrix elements  $W_{ij}$  to compute the score  $S(c_i)$ .”

In response, Applicants note that the score  $S(c_i)$  is calculated according to *Rosenschein*, col. 10, line 44, which shows the score  $S(c_i)$  is a function of the positional weights  $p_i$  and the weights  $W_{ij}$ . As explained *supra*, no input drawn from the “data” of the “document” is used to compute the positional weights  $p_i$ . Moreover, the weights  $W_{ij}$  are drawn from the database 34 of

the server 30 and not from the “data” of the “document”(see Rosenschein, col. 9, lines 16-21. Since no input drawn from the “data” of the “document” is used to compute the score  $S(c_i)$ , Applicants assert that the score  $S(c_i)$  does not represent the claimed “distance between the document and each category as a measure of how close the document is to each category”.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 28 and 39.

In addition with respect to claims 29 and 40, Applicants respectfully contend that Rosenschein does not teach wherein the **web service host** performs: “**creating** a search string, said search string comprising a logical function of a subset of said document keys” (emphasis added).

The Examiner argues: “Regarding claims 29 & 40, *Rosenschein et al.* teach the method and system, wherein said processing comprises said determining, and wherein the method further comprises: creating a search string, said search string comprising a logical function of a subset of said document keys (*see col. 9, lines 59-61, Examiner interprets  $s = s_1, s_2, \dots, s_f \dots s_n$  to be a search string where the logical function (“s and f”) maps  $s_1, s_2, \dots, s_f \dots s_n$  to  $((s_1, s_2, \dots, s_f \dots s_n), f)$ ”).*

In response, Applicants respectfully contend that if the list of context words  $s = s_1, s_2, \dots, s_f \dots s_n$  is the claimed string and if the number  $f$  ) indicating the position of the designated word  $s_p$  in the list  $s$  of context-indicating words) is the claimed logical function as alleged by the Examiner, then said “creating a search string” is not performed by the web service host 30 as required by claims 29 and 40, but rather is performed by the client 52 and then sent to the web service host 30 who processes the already-created list  $s$  via a context-determination algorithm

(see Rosenschein, col. 9, lines 58-61). Although the web service host 30 “**evaluates** the designated word in the context of the context-indicating words” (see Rosenschein, col. 8, lines 63-66), said evaluation is an evaluation of the already-generated designated word  $s_p$  in the context of the already-created list  $s$  of context-indicating words. Rather than create the list  $s$  of context-indicating words, the web service host 30 receives the already-created list  $s$  of context-indicating words from the client 52.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 29 and 40.

In addition with respect to claims 29 and 40, Applicants respectfully contend that Rosenschein does not teach the feature: “creating a search string, said search string comprising a logical function of a subset of said document keys; **submitting said search string to a search engine; receiving links to related documents from said search engine, said links being based on said search string**” (emphasis added).

The Examiner argues: “Regarding claims 29 & 40, *Rosenschein et al.* teach the method and system, wherein said processing comprises said determining, and wherein the method further comprises: creating a search string, said search string comprising a logical function of a subset of said document keys (*see col. 9, lines 59-61, Examiner interprets  $s = s_1, s_2, \dots, s_f \dots s_n$  to be a search string where the logical function (" $s$  and  $f$ ") maps  $s_1, s_2, \dots, s_f \dots s_n$  to  $((s_1, s_2, \dots, s_f \dots s_n), f)$ ); submitting said search string to a search engine (*see col. 9, lines 59-61*); receiving links to related documents from said search engine, said links being based on said search string (*see col. 5, lines 24-25, Examiner interprets "computer data relating to the at least one transmitted word" to**

comprise links.); and returning said links to said remote host (*see col. 7, lines 55-63, Examiner asserts that hyperlinks in "database 90" must be links returned to remote host 90.*)”

Moreover in “Response to Arguments”, the Examiner interprets the context-determination algorithm in Rosenschein as representing the claimed search engine.

In response, Applicants respectfully contend that the preceding argument by the Examiner is not persuasive. In particular, Rosenschein, col. 5, lines 24-25 recites “transmitting from the server to the host computer data relating to the at least one transmitted word”. The recited “computer data relating to the at least one transmitted word” is data retrieved by the web service host 30 from the remote host 90 and subsequently transmitted by the web service host 30 to the user 60. The “computer data relating to the at least one transmitted word” is the data desired by the user 60 in relation to the designated word supplied by the user. Applicants assert that the Examiner’s interpretation of “computer data relating to the at least one transmitted word” as the claimed “links to the related documents” is incorrect based on the following argument.

Applicants cite “<http://en.wikipedia.org/wiki/Hyperlink>” for the following representative definition of “link” in the context of claims 29 and 40: “A hyperlink (often referred to as simply a link), is a reference or navigation element in a document to another section of the same document, another document, or a specified section of another document, that automatically brings the referred information to the user when the navigation element is selected by the user.” Based on the preceding definition of “link” which is well-understood in contemporary usage of website navigation, a link is a reference or a path to hee related documents and not the data in these documents. Therefore, Applicants respectfully contend that the Examiner’s interpretation of the “computer data relating to the at least one transmitted word” as the claimed “links to the

related documents” is incorrect.

Given Applicants’ cited definition of “link”, Applicants cannot find any teaching in Rosenschein of receiving links to related documents from the context-determination algorithm (interpreted by the Examiner to represent the claimed search engine) as required by claims 29 and 40.

Given Applicants’ cited definition of “link”, Applicants cannot find any teaching in Rosenschein of returning the links to the remote host 90 as required by claims 29 and 40.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 29 and 40.

In addition with respect to claims 28, 39, 41, and 43, Applicants respectfully contend that Rosenschein does not teach the feature: “comparing the category keys of each category with said document keys to make a determination of a distance between the document and each category as a measure of how close the document is to each category”.

The Examiner’s argument depends on the following allegation by the Examiner:  
*“Examiner provides Official Notice that the dot product of two vectors is a determination of the distance between the two vectors.”*

In response, Applicants respectfully contend that the preceding allegation of Official Notice by the Examiner is incorrect. For example, two-dimensional Euclidean space, the distance between two vectors which are parallel to each other is independent of their dot product. Generally, in two-dimensional Euclidean space, the dot product  $\underline{A} \cdot \underline{B}$  of vectors  $\underline{A}$  and  $\underline{B}$  is equal to  $|\underline{A}| |\underline{B}| \cos(\underline{A}, \underline{B})$ . Thus in two-dimensional Euclidean space,  $\underline{A} \cdot \underline{B}$  may be interpreted as a

measure of the projection of A onto B, or of the projection of B onto A, and has no relationship to a “distance” between A and B.

In “Response to Arguments”, the Examiner argues that the “distance between two vectors” could be interpreted as the angle formed by the two vectors upon a rigid translation of the two vectors to a common origin in a manner in which the angular orientation of each vector is preserved under the rigid translation. If Applicants accept the preceding interpretation of “distance between two vectors” for argumentation purposes only, Applicants respectfully dispute the Examiner’s allegation of Official Notice that “the dot product of two vectors is a determination of the distance between the two vectors” based on the following argument.

Applicants acknowledge that in two-dimensional or three-dimensional space, the dot product of vectors A and B ( i.e.,  $\underline{A} \cdot \underline{B}$ ) determines  $\cos \theta$ , wherein  $\theta$  is an angle between A and B after the rigid translation has occurred as described *supra*. However  $\cos \theta$  does not determine  $\theta$ , because  $\cos \theta$  is a multivalued function of  $\theta$  in the range of 0 to 360 degrees. For example, if  $\cos \theta = \frac{1}{2}$ , then  $\theta$  is either 60 degrees or 300 degrees which are two physically different angles. Therefore, since  $\cos \theta$  does not determine  $\theta$ , it follows that the dot product  $\underline{A} \cdot \underline{B}$  does not determine  $\theta$ .

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 28, 39, 41, and 43.

In addition with respect to claims 42, 44, 45, and 46, Applicants respectfully contend that Rosenschein does not teach the features: “comparing the category keys of each category with said document keys to make a determination of a distance between the document and each category as

a measure of how close the document is to each category; and determining said set of closest categories based on said determination ..., wherein said comparing comprises computing said distance for each category as a dot product of a vector of the document keys and a vector of the category keys of each category.”

The Examiner’s argument depends on the following interpretation by the Examiner:

“Examiner interprets the modified positional weights,  $p_i$  to be a vector of document keys and each column, of  $W_{ij}$  to be a vector of the category keys of each category”.

In response, Applicants respectfully contend that the preceding argument by the Examiner is not persuasive, because claims 42, 44, 45, and 46 respectively depend from claims 41, 43, 28, and 39 and therefore comprise all limitations in claims 41, 43, 28, and 39. Since the Examiner’s analysis of claims 41, 43, 28, and 39 has asserted that the document keys are  $s_1, s_2, \dots, s_n$  and the category keys are  $k_1, k_2, \dots, k_n$ , the Examiner’s assertion that  $p_i$  is a vector of document keys and that each column of  $W_{ij}$  is a vector of the category keys has introduced a logical inconsistency with respect to antecedent basis (referring back to claims 41, 43, 28, and 39) and therefore demonstrates that the Examiner’s argument is not persuasive.

In “Response to Arguments”, the Examiner argues that the interpretation of the modified positional weights,  $p_i$ , as a vector of document keys is derived from the way each  $p_i$  is derived (*see col. 10, lines 1-7*) from rules equating category keywords in the *database*,  $k_i$ , with keywords in the *document*,  $s_f$ . It is this *equation* that forms the basis of the Examiner’s interpretation of the  $p_i$  as a vector of document keys. Now *Rosenschein et al.* define  $W_{ij}$  to represent the strength of the relation between the keyword  $k_i$  and the concept  $c_j$  (*see col. 9, lines 16-22*). For lack of a better (compact) term, Examiner interprets each column of  $W_{ij}$  as a vector of the category keys.

Since  $W_{ij}$ ,  $k_i$ ,  $s_p$  and  $p_i$  are all distinct, under interpretation, in terms of their computational roles; no logical inconsistency, with respect to antecedent basis of claims 1, 10, 28, and 39, is introduced.”

In response, Applicants respectfully assert that as a matter of legal claim interpretation, the “the document keys” (stated by Examiner to be  $p_1, p_2, \dots, p_n$ ) in claims 42, 44, 45, and 46 must be **the same** document keys ( $s_1, s_2, \dots, s_n$ ) recited in claims 41, 43, 28, and 39, respectively, in order to satisfy antecedent basis. Applicants contend that the Examiner’s interpretation of  $p_1, p_2, \dots, p_n$  as document keys is not a pertinent issue. The pertinent issue is whether  $p_1, p_2, \dots, p_n$  are the same document keys as  $s_1, s_2, \dots, s_n$ . Applicants assert that  $p_1, p_2, \dots, p_n$  are both qualitatively and quantitatively different from  $s_1, s_2, \dots, s_n$ . In particular, the equations in Rosenschein, col. 10, lines 1-7 teach that  $p_1, p_2, \dots, p_n$  are real numbers, whereas Rosenschein, col. 9, lines 58-60 teach that  $s_1, s_2, \dots, s_n$  are words of text. Since  $p_1, p_2, \dots, p_n$  differs from  $s_1, s_2, \dots, s_n$ , it follows that  $p_1, p_2, \dots, p_n$  and  $s_1, s_2, \dots, s_n$  cannot both represent the document keys in claims 42, 44, 45, and 46 and 41, 43, 28, and 39.

Similarly,  $W_{1j}, W_{2j}, \dots, W_{nj}$  (for fixed  $j$ ) is a vector of weights represented by real numbers (see Table I in Rosenschein, col. 9, lines 46-56) and  $k_1, k_2, \dots, k_n$  is a vector of category keys represented by words of text (see Rosenschein, col. 9, line 18 ). Since  $W_{1j}, W_{2j}, \dots, W_{nj}$  differs from  $k_1, k_2, \dots, k_n$ , it follows that  $W_{1j}, W_{2j}, \dots, W_{nj}$  and  $k_1, k_2, \dots, k_n$  cannot both represent the document keys in claims 42, 44, 45, and 46 and 41, 43, 28, and 39.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claims 42, 44, 45, and 46.



In addition with respect to claim 47, Applicants respectfully contend that Rosenschein does not teach the feature: “wherein said sequentially transmitting at least one additional portion of the document is performed after said transmitting the first portion of the document has been performed.”

The Examiner argues: “Regarding claim 47 ... *Rosenschein et al.* teach the method of claim 1, wherein said sequentially transmitting at least one additional portion of the document is performed after said transmitting the first portion of the document has been performed (*see col. 3, lines 6-11, Examiner interprets that part of the "body of text" transmitted to the server, for extraction of the "context-indicating words" to be the first portion of the document. Examiner interprets that part of the "body of text" transmitted from the database, responsive to the evaluation of the designated word, to be at least one additional portion of the document.*).”

In response, Applicants note that the Examiner argues that the “body of text” transmitted from the database 90 to the server 30 is the first portion of the document. However, Applicants have explained *supra* why the “body of text” is not comprised by the “data” of the “document”, but rather is text at the client 52 from which the user 60 selects the designated word. Thus, the Examiner’s argument is not persuasive.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claim 47.

In addition with respect to claim 48, Applicants respectfully contend that Rosenschein does not teach the feature: “wherein the remote host is adapted to sequentially transmit the at least one additional portion of the document to the web service host after the remote host has

transmitted the first portion of the document to the web service host.”

The Examiner argues: “Regarding claim 48 .. *Rosenschein et al.* teach the method of claim 10, wherein the remote host is adapted to sequentially transmit the at least one additional portion of the document to the web service host after the remote host has transmitted the first portion of the document to the web service host (*see col. 2, lines 25-29, Examiner interprets "remote source" to be remote host.*).”

In response, Applicants note that the Examiner argues that the “body of text” transmitted from the database 90 to the server 30 is the first portion of the document (see discussion *supra* of claim 47). However, Applicants have explained *supra* why the “body of text” is not comprised by the “data” of the “document”, but rather is text at the client 52 from which the user 60 selects the designated word. Thus, the Examiner’s argument is not persuasive.

Therefore, Applicants respectfully contend that *Rosenschein* does not teach the preceding feature of claim 48.

In addition with respect to claim 49, Applicants respectfully contend that *Rosenschein* does not teach the feature: “wherein said sequentially receiving at least one additional portion of the document is performed after said receiving the first portion of the document has been performed.”

The Examiner argues: “Regarding claim 49 ... *Rosenschein et al.* teach the method of claim 19, wherein said sequentially receiving at least one additional portion of the document is performed after said receiving the first portion of the document has been performed (*see col. 3, lines 6-11 and col. 2, lines 43-46, Examiner asserts that sequentially transmitting that part of the*

*"body of text " to the server for extraction of the "context-indicating words" then transmitting from the database that part of the "body of text ", responsive to the evaluation of the designated word, implies sequentially receiving at least one additional portion of the document after receiving the first portion of the document.)."*

In response, Applicants note that the Examiner argues that the "body of text" transmitted from the database 90 to the server 30 is comprised by the document. However, Applicants have explained *supra* why the "body of text" is not comprised by the "data" of the "document", but rather is text at the client 52 from which the user 60 selects the designated word. Thus, the Examiner's argument is not persuasive.

Therefore, Applicants respectfully contend that Rosenschein does not teach the preceding feature of claim 49.

**35 U.S.C. § 103(a)**

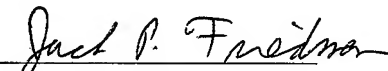
The Examiner rejected claims 2, 11, 20 and 31 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rosenschein *et al.* in view of Mahmoud, “Registration and Discovery of Web Services Using JAXR with XML Registries such as UDDI and ebXML”, June 2002.

Since claims 2, 11, 20 and 31 respectively depend from claims 1, 10, 19, and 30, which Applicants have argued *supra* to not be unpatentable over Rosenschein under 35 U.S.C. §102(b), Applicants maintain that claims 2, 11, 20 and 31 are likewise not unpatentable over Rosenschein in view of Mahmoud under 35 U.S.C. §103(a).

### CONCLUSION

Based on the preceding arguments, Applicant respectfully believes that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicant invites the Examiner to contact Applicant's representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0457.

Date: 02/13/2007

  
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